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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/247,350	02/11/99	TATTON W	WTZ-004

000959
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HM12/1219

EXAMINER	
BAHAR, M	
ART UNIT	PAPER NUMBER
1617	8

DATE MAILED: 12/19/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/249,350	Applicant(s) TATTON ET AL.	
	Examiner Mojdeh Bahar	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claims *1-23* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-8, drawn to a method of treating a viral infection, comprising administering to a subject in need thereof a therapeutically effective amount of a deprenyl compound such that treatment of the viral infection occurs, classified in class 514, subclasses 408, 451, 641 and 654, for example.

II. Claims 9-13, drawn to a method of inhibiting replication of a virus in a virus-infected cell, comprising contacting the virus infected cell with an effective amount of a deprenyl compound, such that the affinity of GAPDH for viral RNA is decreased and viral replication in the virus-infected cell is inhibited, classified in class 514, subclasses 408, 451, 641 and 654, for example.

III. Claims 14-17, drawn to a method of decreasing the affinity of GAPDH for viral RNA, the method comprising contacting GAPDH with a deprenyl compound, such that the affinity of GADPH for viral RNA is decreased, classified in class 514, subclasses 408, 451, 641 and 654, for example.

IV. Claims 18-19, drawn to a method for inhibiting replication of a virus in a virus-infected cell, comprising inhibiting colocalization of GAPDH with PML

such that the replication of virus in the virus-infected cell is inhibited classified in class 514, subclasses 408, 451, 641 and 654, for example.

V. Claims 20-23, drawn to a method for inhibiting tissue damage due to viral infection, comprising administering to a subject in need thereof an effective amount of deprenyl compound such that prevention of tissue damage due to viral infection occurs, classified in class 514, subclasses 408, 451, 641 and 654, for example.

Inventions I, II, III, IV and V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, Groups I, II, III, IV and V are unrelated because they have different functions. Group I functions to treat a viral infection, Group II functions to inhibit viral replication in a virus-infected cell by decreasing the affinity of GAPDH for viral RNA, Group III functions to decrease the affinity of GAPDH for viral RNA, Group IV functions to inhibit replication of a virus in a virus-infected cell through the inhibition of colocalization of GADPH with PML, and finally Group V functions to inhibit tissue damage.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Sp cie Election

Claims 1-4, 6-12, 14-16 and 18-22 are generic to a plurality of disclosed patentably distinct species comprising compounds having specified substitutions on R_1, R_4 and R_6 to the core structure represented by deprenyl compounds of Formula I (see claims 4, 12, 16, and 22).

The species comprising R_1 are as follows:

(a) a specified alkyl, alkenyl, alkynyl or Hydrogen

(b) a specified aralkyl

(c) a specified alkylcarbonyl, alkoxycarbonyl

(d) a specified arylcarbonyl, aryloxycarbonyl

The species comprising R_4 are as follows:

(a) a specified alkyl, alkenyl, alkynyl

(b) a specified heterocyclyl

(c) a specified aryl, aralkyl

The species comprising R_6 are as follows:

(a) a specified C_3-C_6 cycloalkyl or $C\equiv CH$-

(b) a specified R_2 and R_3-R_4 joined to form, together with the methine to which they are attached a specified cyclic or polycyclic group.

These claims encompass species of deprenyl compounds that are so diverse and unrelated structurally that a reference anticipating one of the species would not anticipate or render obvious the other species. Thus the stated species are capable of supporting separate patents. To illustrate this diversity, consider the following

examples: a compound of Formula I having the structure of Deprenyl is classified in class 514, subclass 654. A compound of Formula I wherein R_1 is Hydrogen, R_2 is methyl, R_3 is CH_2-N-CH_2, R_4 is Pyrrole, R_5 is methylene and R_6 is C≡CH-, is classified in class 514, subclass 408. A compound of Formula I wherein R_1 is Hydrogen, R_2 is Hydrogen, R_3 is CH_2-N-CH_2, R_4 is furan, R_5 is methylene and R_6 is C≡CH-, is classified in class 514, subclass 451. A compound of Formula I wherein R_1 is Hydrogen, R_2 is ethyl, R_3 is S-CH_2, R_4 is methyl, R_5 is methylene and R_6 is cyclopropyl, is classified in class 514, subclass 641.

Therefore, the diversity of species in claims 1-4, 6-12, 14-16 and 18-22 requires a search of many different subclasses, 408, 451, 641, 654, etc., which constitutes an undue burden to the office. **Applicant is required to elect a specific compound for examination purposes.** Applicant is advised that the response to this requirement must include an identification of the species that is consonant with the requirement set forth in 35 U.S.C. 121 as well as a listing of all claims readable thereon.

Claims 1-23 are generic to a plurality of disclosed patentably distinct species comprising viruses and viral infections, e.g. HIV, Herpes Simplex-1, Hepatitis A, Epstein-Barr, SV-40, cytomeglavirus and adenovirus-5. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed. The treatment of each viral infection represents a separate field of medical technology having a separate field of search. The search for treatment of all viral infections and viruses is therefore an undue burden on the office. Note that the search is not limited to patent files.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that in order for the reply to this requirement to be complete it must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Because the above restriction/election requirement is complex, a telephone call to the applicant's agent to request an oral election was not made. See M.P.E.P. Sec 812.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mojdeh Bahar whose telephone number is (703) 305-1007. The examiner can normally be reached on (703) 305-1007 from Monday to Friday from 9:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minna Moezie, J.D., can be reached on (703) 308-4612. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Mojdeh Bahar
Patent Examiner
December 8, 2000

MINNA MOEZIE, J.D.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600